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**ABSTRACT**

The Michigan Education Association recommends a task-force approach as one of the solutions to increasing the acquisition of additional skills for all elementary teachers in education and communication skills. An inservice model was developed to be used primarily with inner-city elementary pupils, but the basic design is applicable for use with any student group. The model is in two basic parts: (1) Reading Task Force Personnel: Role and Function; and (2) Competency-based Design. To implement the proposed concepts it is necessary that relevant staff persons be trained in the components of such a program. Included in this model are general objectives, specific objectives, suggested reading materials, criterion responses, and discussion topics. (Author/WR)

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READING INSERVICE PROGRAM

Compiled and edited by the Division of Minority Affairs, Michigan Education Association.

Herman W. Coleman - Associate Executive Secretary  
Ruby E. King - Minority Affairs Consultant  
Arnoldo Martinez - Minority Affairs Consultant  
Charles T. Williams - Minority Affairs Consultant  
Marsha Cosgrove - Secretary  
Theresa Ledesma - Secretary

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#### READING AND COMMUNICATIONS INSERVICE MODEL

Presently, there exists a tremendous gap between the level of expertise that is desirous of urban elementary teachers in reading and communication and the level of preparation teachers receive in reading and communication at most teacher-training institutions. If this gap is to be closed, it is very necessary that the board of education provide inservice training for its elementary teachers in reading and communication.

Recent state and local assessment results indicate the critical necessity for inservice training of elementary teachers in reading and communication. An inservice training program for elementary teachers is imperative and essential if reading and communicative skills are to be effectively taught to urban students.

Figures gathered by the U.S. Office of Education point to shocking statistics. One of four students nationwide has significant reading deficiencies; more than three million illiterates are in the nation's adult population; about one-half of the unemployed youth, ages 16-21, are functionally illiterate; three-quarters of the juvenile offenders in New York City are two or more years retarded in reading.

There are numerous other indicators which further dramatize the problem: Achievement tests given to 84,000 third graders in New York City show that 60% are reading below third-grade level. A study of 50,000 eighth graders showed that only 14% had eighth-grade reading ability. Eight percent read at fifth-grade level and 7% at twelfth-grade level. The remainder of the pupils ranked in between. A USOE report says, "This is typical and creates an enormous problem for both the student and the school." Recent studies indicate that the number of boys who either read poorly or not at all exceeds the number of girls by 10 to 1. A USOE report estimates that from 1 to 5% of a school's population could have severe reading disability requiring technical diagnosis and treatment in a reading clinic. This may seem small, but in a city the size of Detroit, with some 300,000 children in the public schools, it means that 15,000 children probably need some kind of clinical help. Even in a system the size of Kettering, Ohio, with 15,000 students, there may be 750 pupils who need clinical aid.

Many reasons are being given for current failures of school reading programs. A four-part, in-depth study of the problem by USOE's PREP (Putting Research into Educational Practice) offers these reasons: more children in school; more complex psychological problems; more distractions; less compulsion to learn; and insufficient funds to provide adequate personnel, space, and materials.

The PREP reports, prepared jointly by the Indiana U. Reading Program, USOE, the Educational Resources Information Center (ERIC) data bank on reading, and the International Reading Association, offer educators

advice on how to improve their reading programs. The study was made on the premise that research and experimentation, while nowhere near offering all the answers, had already supplied enough applicable data to improve both the teaching of reading and efforts toward remedying reading problems.

The PREP study admits that "not a great deal is known about reading problems--why some children learn and others do not, what kind of training to give to those who teach reading, what materials best facilitate learning to read, what separate skills combine to turn an illiterate child into a discriminating reader." But it quickly adds that some significant conclusions can be reached from research already available:

1. The classroom teacher is the single most important factor in whether, and how well, a child learns to read.
2. Most of the present methods and materials for teaching reading work for some children, but no one method works for all children.
3. Diagnostic teaching is necessary if children are to succeed in reading.
4. Teaching should be carried on by enthusiastic teachers who are trained in identifying reading skills and in matching problems with appropriate corrective techniques and materials.

Although the classroom teacher is now recognized as the single most important factor in reading success, the PREP study points out that there are large numbers of elementary school teachers who have never been taught to teach reading effectively. Most high school teachers, confronted daily by students who cannot read effectively, have not had a single course in reading. It is in light of the above that the Minority Affairs Division of MEA has developed a Reading-Communication Inservice Model.

#### READING AND COMMUNICATION SKILLS TASK-FORCE APPROACH

MEA is recommending a task-force approach as one of the solutions to increasing the acquisition of additional skills for all elementary education teachers in reading and communication skills. The ultimate objective is that, at some point within a short period of time, all elementary education teachers in the state of Michigan will become reading specialists.

The task force shall consist of one central office reading coordinator and two reading specialists defined by academic criteria that is consistent with or no less than the requirements stipulated by the I.R.A. (International Reading Association for reading specialists). These two specialists, two substitute teachers, one teacher aide or community liaison person are to serve as an additional resource for teachers. The objective is to have reading and communication skills expertise available for classroom teachers from September through June whenever a teacher might need assistance in fully implementing, understanding, or when she needs to be introduced to a new technique.

The following Inservice Model is designed to develop a prototype teacher oriented inservice program teaching reading and communication skills to the inner-city child.

This model was developed to be used primarily with inner-city elementary pupils but the basic design is applicable for use with any student group. It can also be adopted to be used with secondary pupils. The model is in two basic parts: 1. Reading Task Force Personnel: Role, and Function. 2. Competency-based design.

In order to implement the proposed concepts it is necessary that relevant staff persons be trained in the components of such a program. In addition, classroom teachers should share in the planning of the problem to the extent that they can supply information about the problems of the children they instruct. This feature will undoubtedly have an influence upon the effectiveness of the program.

General Objective:

To develop a prototype teacher oriented inservice program teaching reading and basic communication skills to the inner-city child.

Specific Objectives:

1. Assignment of a Reading Task Force to provide a concentrated inservice training program which will have the following goals:
  - A. To increase teacher awareness of the special educational needs of the disadvantaged.
  - B. To organize a diagnostic program that will encourage early detection of reading disabilities.
  - C. To increase teacher skills in the use of diagnostic tools including formal and informal tests.
  - D. To promote the formation and use of behavioral objectives for reading programs.
  - E. To develop and use effectively instructional materials that will assist in the attainment of the objectives.
  - F. To develop strategies based upon the concepts of behavioral modification.
  - G. To develop appropriate evaluation procedures from which all participants can acquire data about the development of reading skills.

I. Reading Task Force Personnel:

1. Reading Coordinator:

- A. Minimum Requirements: M.A. in remedial reading or the equivalent. At least five years of successful professional

experience including classroom, remedial and clinical experience. Experience in urban education is a prerequisite. Preference should be given to candidates who have experience in administration or supervision and training of teachers.

- B. Brief Definition of Role: To work in the schools as part of the Reading Task Force. To assume administrative and supervisory responsibilities for the program. To coordinate the program with other city school district programs.

2. Reading Specialists:

- A. Minimum Requirements: M.A. in remedial reading or at least 18 graduate hours in the psychology of reading, improvement of reading or remedial reading. At least three years of successful classroom experience including remedial and clinical experience. At least two years of experience in an urban area. Must meet requirements stipulated by the I.R.A. for reading specialists. Preference given to candidates with supervisory or consultant experience.
- B. Brief Definition of Role: To work in the schools as part of the Reading Task Force. To be responsible to the reading coordinator and to the building principals in the schools being serviced.

3. Substitute Teachers:

- A. Minimum Requirements: Meet Michigan State certification requirements. At least two years of successful classroom experience at the primary level in urban education. Preference given to teachers who have participated in other reading programs and have demonstrated excellence in teaching classroom reading.
- B. Brief Definition of Role: To be used on a rotating basis to free regular classroom teachers of their responsibilities. To work in the schools as part of the task force. To be responsible to the reading coordinator and to the building principals in the schools being serviced.

4. Teacher Aides:

- A. Minimum Requirements: Aides must be high school graduates. Preference will be given to aides who anticipate future careers in education. Preference will also be given to aides who have participated in other reading programs and have demonstrated the ability to work with children and teachers. The aide will assist in facilitating communication between home and school. Assist teachers in arranging relevant parent-teacher conferences.

B. Brief Definition of Role: To work in the schools as part of the Reading Task Force. To assume some of the same responsibilities as the substitute teachers. The role of the aides is to be determined by the reading specialists. To be responsible to the reading specialists and to building principals.

Equipment and materials will consist of no less than the following:

1. Clerical supplies for the Reading Task Force.
2. Professional books and journals to contribute to the professional libraries of the participating schools as they are being utilized by the staff.
3. Diagnostic materials.
4. Supplementary teaching materials and equipment described below.

Explanation of the use of equipment and materials:

Equipment and materials will be used in the remedial classroom setting and the regular classroom setting. The materials will consist of skill building materials, phonetic materials, paperback books, kits, cyclo teacher for content area, classroom libraries, etc. and reading equipment--namely, EDL Controlled Reader, EDL Tachistoscope, Bell and Howell Language Master, as well as audio-visual equipment, namely, Cassette and Wollensak Tape Recorder; other equipment, namely, the Bausch and Lomb Vision Tester. Materials and equipment are used for the prescribed program for each individual child to meet his specific needs. Classroom teachers, reading teachers and aides will use the material and equipment. Additional materials will be acquired through recommendations from reading specialists.

Definition of Operational Procedures:

1. Selection of Target Schools:  
This determination can be made by participating schools or districts.
2. Length of Operation:  
September through June.
3. Participation of Target School Personnel:  
The classroom teachers and the leadership teams of each school will be involved in the development of specific objectives before the program is initiated and during the operation of the program. They will also be involved in the evaluation of the success of the program.
4. Participation of Classroom Teachers:
  - A. Substitute teachers and teacher aides will be used on a rotating basis to provide opportunities for the classroom teachers to meet as teams; to consult with reading specialists; to participate in small group discussions and workshops.

sessions, and to work with small groups of children from their own classroom who have reading disabilities with the assistance of the reading specialists who will aid the classroom teachers to develop a corrective, individualized program that will eventually function as part of the classroom structure.

- B. Reading specialists are to be involved in the classroom program as follows:
  - 1) Observation for the purpose of providing practical suggestions and new ideas.
  - 2) Demonstration of diagnostic and corrective methods.
  - 3) Demonstration of supplementary teaching materials and equipment.
  - 4) Demonstration of the therapeutic principles of remediation, of flexible grouping patterns and of ideal lesson planning.
  - 5) Through workshop sessions the following skills are to be emphasized:
    - a. Sensitivity to the needs and characteristics of urban pupils including awareness of the patterns of non-standard English.
    - b. Recognition of the causes of reading failure including emotional, and neurological factors. Recognition of students who need to be referred to specialists for diagnosis and treatment.
    - c. Analysis of specific reading needs.
    - d. Corrective procedures to be used in the classroom.

5. Coordination of the Program:

The Reading Task Force is to meet frequently with the reading coordinator to consider objectives, needs, and progress. The reading coordinator is to meet frequently with the leadership teams and reading specialists of participating schools.

6. For maximum effectiveness each building should have one complete team.

II. Competency Based Design:

To achieve the stated objective, the following competency based design is presented to indicate how such a program may be conducted.

**Assessment of Participants:**

A consultant shall prepare instruments, both verbal and behavioral, which assess the designated reading coordinator's, specialists'

and classroom teachers' skills in the following areas:

1. Skills in diagnostic assessment and analysis of pupils' reading skills and deficiencies.
2. Skills in observation techniques of pupils.
3. Skills in constructing behavioral objectives.
4. Skills in the development of selection of reading instructional materials.
5. Skills in learning strategies.
6. Skills in evaluation techniques.
7. Verbal knowledge, beliefs, and values about inner city children.
8. Skills in communicating with parents.

These assessment data can be acquired through the use of written tests, role-playing techniques, participant analysis of films and video tapes of classroom reading activities, and behavioral tasks, i.e., constructing objectives, making observations, selecting instructional materials, making evaluations demonstrating teaching strategies. All data acquired from the assessment shall be analyzed by a consultant and presented to the participants in order that they may know their strengths and weaknesses as they pertain to the development of an effective reading program.

Following the collection, analysis and presentation of assessment data to the participants, each one will begin to work in the following competency based program as his level of skills dictates. In some instances, participants will work as a unit and in other instances they will work individually. These decisions will be dictated by the data acquired from the assessment procedures.

### **III. Ways of Assessing Pupils' Reading Behaviors:**

**Objective 1.** Participants will list and systemize under perceptual and verbal categories prerequisite skills necessary for the development of reading behaviors. These skills include visual recognition of letters, phonemes, graphemes, and morphemes, rhythm and timing in the production of sounds and words, transfer of sounds from one word to another, discrimination of sounds and words, effective eye movements coordinated with the production of sounds and words, verbal practice, rote verbal learning and pictorial mediation, meaningfulness, retention, association, and any others that participants perceive as being prerequisites of reading.

**Criterion Response:** Teachers will design a systemized list of necessary prerequisites for the development of reading behavior.

**Time Required:** \*Eight hours.

**Instructional Materials:** Film: Readiness for Reading - McGraw-Hill

**Objective 2.** Teachers will analyze standardized reading tests in terms of the prerequisites listed in Objective 1 that learners must use in order to successfully respond to each item. Test items will be categorized as to the number and type of prerequisites required for a successful response.

**Criterion Response:** Teachers will provide a consensus report on the prerequisites required in order for pupils to successfully respond to items on standardized reading tests.

**Time Required:** Eight hours.

**Suggested Reading Materials:**

Gibson, E.J., Pick, A., Osser H., and Hammond, D. The Role of Grapheme-Phoneme Correspondence in the Perception of Words. American Journal of Psychology, 1962, Volume 75, 554-570.

Silberman, H.F. Experimental Analysis of a Beginning Reading Skill, Programmed Instruction, 1964, p. 4-8.

Underwood, B.J. Verbal Learning in the Educative Process, Harvard Educational Review, 29 (1959), pp. 101-117.

. Laboratory Studies of Verbal Learning, in Theories of Learning and Instruction, Ed. E. R. Hilgard, Part I of the 63rd Yearbook of the National Society for the Study of Education, 133-152, Chicago, 1964.

Mandler, G. Verbal Learning in New Directions in Psychology, Volume III, p. 1-50. New York: Holt, Rinehart & Winston, 1967.

Underwood, B.J. The Representativeness of Rote Verbal Learning in Categories of Human Learning, Ed. A.W. Melton, 48-78, Academic Press, New York, 1964.

Gleason, H.A. Jr. Language and English Grammar, New York: Holt, Rinehart, & Winston, 1965.

Postal, P.M. Underlying and Superficial Linguistic Structures, Harvard Educational Review.

\*Hours refer to instruction hours.

Lado, R. Language Teaching: A Scientific Approach. New York:  
McGraw-Hill Book Company, 1964. (For Bi-Lingual Program)

Scherer, G.A. and Wertheimer, M. A Psycholinguistic Experiment  
in Foreign Language Teaching. New York: McGraw-Hill Book  
Company, 1964. (For Bi-Lingual Program)

Other selected readings may be suggested by the designated  
Reading Coordinator.

Objective 3. Participants will construct testing instruments and/or  
situation designed instruments to tap the list of sys-  
tematized prerequisites for the development of reading  
behaviors. Tests will be inclusive of all listed pre-  
requisites. Tests will be constructed so that reliability  
and validity can be assessed.

Criterion Response: Testing instruments will be presented and discussed.

Time Required: Eight hours.

Suggested Reading Materials:

DeCecco, J.P. The Psychology of Learning and Instruction.  
Englewood Cliffs, New Jersey: Prentice-Hall, 1968. Chapters  
14 & 15.

Ebel, R.L. Measuring Educational Achievement. Englewood Cliffs,  
New Jersey: Prentice-Hall, 1965.

Gronlund, N.E. Measurement and Evaluation in Teaching. New York:  
MacMillan, 1965.

Noll, V.H. Educational Measurement. Boston: Houghton-Mifflin  
Company, 1965.

Stanley, J.C. Measurement in Today's Schools (Fourth Edition)  
Englewood Cliffs, New Jersey: Prentice-Hall, 1964.

Gorow, F.F. Better Classroom Teaching. San Francisco: Chandler  
Publishers, 1966.

Lindeman, R. Educational Measurement. Chicago: Scott Foreman and  
Company, 1967.

Wood, D.A. Test Construction. Columbia: Merrill Publishers, 1960.

Objective 4. Participants will view video tapes of selected children  
manifesting reading behaviors and analyze such strengths  
and weaknesses in terms of the systematized list of pre-  
requisite behaviors.

Criterion Response: Participants will present a diagnostic profile of  
the pupils' reading behavior in terms of strengths  
and weaknesses.

Time Required: Eight hours.

Instructional Materials: Video tapes made by consultant.

Objective 5. Participants will view films about inner city children and write lists of their behaviors which are indicative of prerequisites of reading behaviors. Participants will make a comparative analysis of those behaviors viewed and listed from the films and those behaviors they listed as prerequisites of reading behavior in Objective 1.

Criterion Response: Participants will make a comparative analysis of the behaviors of inner city children which relate to the acquisition of reading behaviors with those prerequisites which they listed in Objective I. They will list apparent strengths and weaknesses of inner city children as they relate to the acquisition of reading behaviors.

Time Required: Sixteen hours.

Suggested Films: Portrait of a Disadvantaged Child: Tommy Knight  
McGraw-Hill Films

Portrait of the Inner City  
McGraw-Hill

My Own Yard To Play In  
McGraw-Hill Films

Simulation Materials: Bo Green Defends His Dialect  
Inner City Simulation Laboratory  
Science Research Associates

Objective 6. Given a sample of five inner city children, participants will administer standardized reading tests and/or teacher made tests. Each item on the tests will have been categorized as to the prerequisite behaviors related to reading.

Criterion Response: Participants will analyze results of tests in terms of verbal and perceptual behaviors as they relate to prerequisites for reading behavior. Participants will write diagnostic statements about pupils' strengths and weaknesses in prerequisites for reading skills. Raw data will be presented on graphs.

Time Required: Sixteen hours.

IV. Preparing Behavioral Objectives:

Objective 7. Participants will write sample behavioral objectives for reading behaviors to meet criteria described by Mager.

**Criterion Response:** Participants will be able to demonstrate skills in writing behavioral objectives for reading behaviors.

**Time Required:** Eight hours.

**Suggested Reading Materials:**

Mager, R. Preparing Instructional Objectives. Fearon Press, 1962.

Gerhand, N. "Behavioral Outcome: What the Child Is Able to Do As a Result of the Teaching Learning Experience." Grade Teacher, Volume 84, April, 1967.

Popham, W.J. & Baker, E.L. "Measuring Teacher Attitudes Towards Behavioral Objectives." Journal of Educational Research, Volume 8, June, 1968.

Kopfer, P.G. "Behavioral Objectives in the Cognitive and Affective Domain." Educational Technology Magazine, Volume 8, June, 1968.

Burns, R.W. "Measuring Objectives and Grading," Educational Technology Magazine, Volume 8, December, 1968.

Garvey, J.F. "What and Why Behavioral Objectives," The Instructor, Volume 77, April, 1968.

Engman, B.D. "Behavioral Objectives: Key to Planning," The Science Teacher, Volume 35, October, 1968.

**Video Tape:** Writing Educational Objectives  
State University System of Florida

Writing Educational Objectives in Behavioral Terms  
State University System of Florida

**Objective 8.** Given the test analysis of the five pupils' level of prerequisite skills, participants will write behavioral objectives for individual pupils.

**Criterion Response:** Participants will compile a list of suitable behavioral objectives for the five inner city pupils. Each objective will meet the criterion as prescribed by Mager in the assigned readings. Both group and individual objectives will be written.

**Time Required:** Eight hours.

**V. Discussing Assessment and Objectives with Parents and Pupils**

**Objective 9.** Participants will plan a consultation session with parents of the five inner city pupils. They will present the assessment data and planned objectives. They will encourage parents to interact in the consultation.

**Criterion Response:** Participants and parents will reach a consensus on the assessment methods and the objectives. Parents will arrive at modes by which they can assist their children at home. Participants and parents will evaluate whether the consultation was helpful.

**Time Required:** Sixteen hours.

**Suggested Simulation Materials:**

Conferences with Mrs. Parsons and Mrs. Connors  
Inner City Simulation Laboratory  
Science Research Associates

Ronald Thurgood and Stanley Jones  
Relate Parent's Opinions  
Inner City Simulation Laboratory  
Science Research Associates

Interpreting Children's True Capabilities to Parents  
Teaching Problems Laboratory  
Science Research Associates

Telling Parents When Their Children Have Serious Problems  
Teaching Problems Laboratory  
Science Research Associates

Getting Parents Interested in the Children's Reading Problems  
Teaching Problems Laboratory  
Science Research Associates

Contacting an Unresponsive Parent  
Teaching Problems Laboratory  
Science Research Associates

**Suggested Reading Material:**

Teacher-Community Interaction Model  
Minority Affairs Division  
Michigan Education Association

**Objective 10.** Participants will plan a consultation session with the five inner city pupils. They will present the assessment data and the planned objectives. They will encourage pupils to interact in the consultation.

**Criterion Response:** Participants and pupils will reach a consensus on the meaning of the assessments and the objectives. Pupils will arrive at modes by which they can help themselves as well as use their parent's help. Participants and pupils will evaluate whether the consultation was helpful.

Time Required: Sixteen hours.

Suggested Simulation Materials:

Ability and Achievement Testing Techniques: Helping Children Realize Their Capabilities and Limitations  
Inner City Simulation Laboratory  
Science Research Associates

Getting Class Operation on the Census: Helping Children Who Won't Listen to Remember or Follow Directions  
Inner City Simulation Laboratory  
Science Research Associates

Mary Christian and Emma Morgan  
Discuss Assignments: Encouraging Children to Work Independently  
Inner City Simulation Laboratory  
Science Research Associates

Teaching Children Not Prepared for Grade Level Work: Helping Unprepared Children  
Inner City Simulation Laboratory  
Science Research Laboratory

Involving Pupils in Self Evaluation  
Teaching Problems Laboratory  
Science Research Associates

Having Students See Consequences of Undesirable Behavior  
Teaching Problems Laboratory  
Science Research Associates

Involving the Majority of Children in Group Discussions  
Teaching Problems Laboratory  
Science Research Associates

**VI. Selection of Instructional Materials**

Objective 11. Participants will select instructional materials necessary to achieve stated behavioral objectives. Selections will be made from stratified reading texts, filmstrips, pictorial stimuli, programmed materials, audio-visual materials, etc. Included in the instructional materials will be some which relate to the life style of inner city children.

Criterion Response: Participants will gather instructional materials in reading that relate to the objectives, to the strengths and weaknesses of pupils and to inner city pupils' interests and needs.

Time Required: Sixteen hours.

Suggested Simulation Materials:

Finding Film and Film Strips for an Area of Study  
Teaching Problems Laboratory  
Science Research Associates

Finding Materials for Children  
Teaching Problems Laboratory  
Science Research Associates

Finding Helping Selecting Instructional Materials  
Teaching Problems Laboratory  
Science Research Associates

Children Learn from Filmstrips  
McGraw-Hill Films

Choosing a Classroom Film  
McGraw-Hill Films

Creating Instructional Materials  
McGraw-Hill Films

Selecting and Using Ready Made Materials  
McGraw-Hill Films

VII. Behavior Modification Strategies

Behaviors can be specified in terms of the classes of stimuli and responses involved. For example, "terminal behavior" is the final goal of instruction. When a terminal behavior has been achieved then it can be said that learning has occurred. Terminal behaviors are obtained through the pursuit of a logical sequential set of prerequisite behaviors which are gradually automatized to the extent that they go from observable behaviors to covert unobservable status. Thus early lip movements which occur in reading gradually disappear as more skills in reading develop and silent reading gradually occurs. Reading occurs because symbols, i.e. letters, words, are attached to objects. The objects are discriminative stimuli which can elicit a specific response or word. For example, saying a letter name like "you" can be regarded as a response which is under the control of a grapheme U. Behavioral specification of reading behavior requires detailed identification of the stimulus response relationship to be learned. Some of the important classes of those are as follows:

<u>Stimulus</u>	<u>Response</u>
1. Isolated graphemes (classes of visual symbols)	1. Identifying response, e.g. saying the name of the letter
2. Particular graphemes or grapheme combinations in words	2. Phonemic responses e.g. articulation of particular phonemes linked to other phonemes
3. Printed words	3. Spoken reconstruction (Overt or covert)

- |                                   |   |
|-----------------------------------|---|
| 4. Spoken words (Overt or covert) | 4. Meaning responses  |
| 5. Sentences or broader contexts  | 5. A delimited class of lexical or grammatical meanings to fit into a particular position in a sentence                     |
| 6. Any word not recognized        | 6. "Search routine" to explore possibilities suggested by phonic intra-word context or larger context cues ("Carroll, 1964) |

The combination of perceptual and verbal responses results in reading behaviors.

Reading responses should be learned in a logical sequential manner in sets that are small enough to allow some occasion when each separate thing to be learned is emphasized. The function of a program of reading instruction is to organize all the responses so that they can be acquired in this sequential manner in an efficient fashion. At the same time the program should permit the pupils to begin with those already formed prerequisites that he brings with him to the classroom and to gradually build the new responses which will result in the terminal behavior. Behavior modification techniques are designed in just this manner, starting with the pupil's baseline of reading behaviors or his already formed prerequisites, and then building new responses that lead to the terminal behavior - reading in a logical sequential manner. Before the participants can begin to use behavioral modification techniques in a reading program it is necessary that they learn the techniques as they exist. To effect that, the following tasks have been designed.

Terminal Objective:

Given one inner city pupil, the teachers will design and conduct behavior modification techniques to effect a change in behavior - learning.

Objective 1. Select any observable, measurable response emitted by one inner city pupil and obtain a baseline of the response. Shape the response as described in the designated readings. Use a one-to-one ratio reinforcement schedule. Effect stability in the frequency of response.

Criterion Response: The participants will record the results of the process they used on a graph and will write an analysis about the results.

Time Required: Sixteen hours.

Suggested Reading Materials:

Sidman, M. Tactics of Scientific Research. Chapter 11, Basic Books. New York, 1960.

Skinner, B.F. Science and Human Behavior. Chapter 6.

Bandura, A. Principles of Behavior Modification. Chapter 2.

Objective 2. Given that the response in Objective 1 is stable, change the reinforcement schedule to a fixed ratio schedule and graph what occurs to the frequency of response.

Criterion Response: The participants will graph the response rate on the same graph as in Objective 1 and write an analysis of what occurred.

Time Required: Eight hours.

Suggested Reading Materials:

Reynolds, G.S. Primer of Operant Conditioning. Chapter 6.

Bandura, A. Principles of Behavior Modification. Chapters 4 & 5.

Objective 3. Given that the rate of response remains stable in Objective 2, shift from a fixed ratio schedule to an extinction schedule and graph what happens to the frequency of response.

Criterion Response: The participants will graph the response frequency on the same graph as in Objectives 1 and 2 and write an analysis of what occurred to the frequency of the response.

Time Required: Eight hours.

Suggested Reading Materials:

Bandura, A. Principles of Behavior Modification. Chapter 6.

Williams, C.D. The Elimination of Tantrum Behavior by Extinction Procedures, in Ullman and Krasner, Case Studies in Behavior Modification.

Objective 4. Reinforce the same response as in Objectives 1, 2, and 3 of a fixed interval schedule of five minutes per reward.

Criterion Response: The participants will graph the response frequency on the same graph as for Objectives 1, 2, and 3. The participants will write a comparative analysis of the effects of the different reinforcement schedules on the frequency of response.

Time Required: Eight hours.

Suggested Reading Material:

Same as for Objectives 1, 2, and 3.

Objective 5. Given the same response as in Objectives 1, 2, 3, and 4, use a variable ratio schedule of reward to maintain the response.

Criterion Response: The participants will graph the response frequency on the same graph as for Objectives 1, 2, 3, and 4. The participants will write a comparative analysis of the effects of Objective 5 on the response as compared to the effects found in Objectives 1, 2, 3, and 4.

Time Required: Eight hours.

Suggested Reading Material:

Same as for Objectives 1, 2, 3, and 4.

Objective 6. Given the same response as in Objectives 1, 2, 3, 4, and 5, use a variable interval schedule of reward to maintain the response.

Criterion Response: The participants will graph the response frequency on the same graph as for Objectives 1, 2, 3, 4, and 5. The participants will write a comparative analysis of the effects of Objective 6 on the response as compared to the effects found in Objectives 1, 2, 3, 4, and 5.

Time Required: Eight hours.

Suggested Reading Material:

Same as for Objectives 1, 2, 3, 4, and 5.

#### VIII. Behavior Modification Techniques for Reading Instruction

Following the completion of Objective 6, the participants will develop behavior modification programs for five inner city pupils in reading behaviors.

Terminal Objective:

Using the skills in applied behavior modification techniques gained in Objectives 1 through 6, participants will design a token economy

and/or contingency contracting learning situation for five inner city pupils in reading behaviors. Using the assessment data acquired about these pupils in Objectives I-1-6, select one or more of the following reading behaviors as the behavior to be modified:

1. Identify graphemes
2. Articulation of phonemes
3. Spoken reconstruction (read aloud)
4. Spoken words (comprehension of words spoken)
5. Search out (sound out) new words
6. Discriminate phonemes
7. Discriminate graphemes
8. Associate phonemes
9. Identify phonemes
10. Others identified by participants

To effect the above terminal objective, the following objectives have been designed:

Objective 7. Participants will design a token economy reward system for those inner city pupils who require immediate teacher reinforcement. They will modify one or more of the above responses or any others they choose that relate to reading.

Criterion Response: Participants will graph pupils' responses and write a analysis of the results.

Time Required: One week.

Suggested Reading Material:

McKenzie, H., Clark, M., Wolf, M., Kothers, R., and Benson, C. Behavior Modification of Children With Learning Disabilities Using Grades as Token Reinforcement. Exceptional Children, 1968, 34, 745-752.

O'Leary, K.D. and Becker, W.C. Behavior Modification of an Adjustment Class: A Token Reinforcement System. Exceptional Children, 1967, 33, 637-642.

Wolf, M., Giles, D.K., & Hall, R.V. Experiments With Token Reinforcement in a Remedial Classroom. Behavior Research and Therapy, 1968, 6, 51-64.

Objective 8. Participants will design a contingency contracting system for those inner city pupils who can complete assignments with a minimum of reinforcement from the teacher. They will modify one or more of the above listed responses or any others they choose that relate to reading.

Criterion Response: Participants will graph pupils' responses and write an analysis of the results.

Time Required: One week.

Suggested Reading Material:

Homme, L. How to Use Contingency Contracting in the Classroom. Chapters 1 through 10.

Becker, W.C., Madsen, C.H., Arnold, C.R., and Thomas, D.R. The Contingent Use of Teacher Attention and Praise in Reducing Classroom Behavior Problems. Journal of Special Education, Volume I (1967) 287-307.

Bushell, D., Wrobel, P.A., and Michalla, M.L. Applying Group Contingencies to the Classroom Study Behavior of Preschool Children. Journal of Applied Behavior Analysis, 1968, 1, 55-61.

Clark, M., Lachowicz, J., Wolf, M.M. A Pilot Basic Education Program for School Dropouts. Behavior Research and Therapy, 1968, 6, 183-188.

Objective 9. Participants will design evaluative instruments to determine if pupils have attained the stated objectives. The evaluative instruments will be administered to pupils and results will be presented in a graphic presentation in conjunction with assessment data acquired in Objective I-1-6. Standardized tests may be used if desired.

Criterion Response: Participants will write a diagnostic analysis of each pupil's original strengths and weaknesses in prerequisites, the objectives used with the pupils, the strategies used with the pupils, and the results in terms of achievement of objectives.

Time Required: Sixteen hours.

Suggested Reading Material:

None.

INSTITUTIONS AND CONTACT PERSONS WHERE QUALITY READING AND COMMUNICATIONS SKILLS CANDIDATES TO BE EMPLOYED:

Roy Kress  
Professor of Psychology  
Associate Director of the  
Reading Clinic  
Temple University  
Philadelphia, Pennsylvania

Dr. Alan Cohen, Director  
Reading Center  
Yeshiva University  
New York, New York

Mr. Donald Clelland  
University of Pittsburg  
Pittsburg, Pennsylvania

Constance McCullough  
San Francisco State College  
San Francisco, California

Dr. Sydney Raugh  
Director of Reading  
Hofstra University  
Hempstead, L.I., New York

Dr. Helen Huus  
University of Missouri  
Kansas City, Missouri

Mr. Leo Fay  
Indiana University  
Bloomington, Indiana

Dr. William Sheldon, Director  
Reading Center  
Syracuse University  
Syracuse, New York